

c1  
D F1  
encoding the components using a compression algorithm;  
constructing packets from the encoded components, where at least one packet is associated with each encoded component and the at least one packet comprises header information and encoded data and wherein the header information comprises a predictor;  
combining the packets into a packetized encoded bitstream;  
separating packets from the packetized encoded bitstream using the header information;  
decoding packets in a parallel using a decompression algorithm to recover the encoded data;  
constructing the plurality of components from the recovered encoded data; and  
combining the plurality of components to recover the bitstream.

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c2  
3. (Twice Amended) A method for parallel compression and decompression of a bitstream, comprising:  
separating a bitstream of a digitized graphic or video frame into a plurality of components by separating the graphics or video frame into separate lines;  
encoding the components using a compression algorithm;  
constructing packets from the encoded components, where at least one packet is associated with each encoded component and the at least one packet comprises header information and encoded data and wherein the header information comprises a predictor;  
combining the packets into a packetized encoded bitstream;  
separating packets from the packetized encoded bitstream using the header information;  
decoding packets in a parallel using a decompression algorithm to recover the encoded data;  
constructing the plurality of components from the recovered encoded data; and  
combining the plurality of components to recover the bitstream.

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c3  
8. (Amended) The method of Claim 7, wherein the header information of the at least one packet further comprises a size and an alignment.

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13. (Amended) A system for parallel compression and decompression of a bitstream, comprising:

an encoder system comprising:

C4  
a plurality of encode units operable to receive components of a pixel separated from a bitstream and to encode the components using a compression algorithm;

the encode units further operable to construct packets from the encoded components, where at least one packet is associated with each encoded component and the at least one packet comprises header information and encoded data and wherein the header information comprises a predictor; and

D1  
a multiplexer coupled to the encode units, the multiplexer operable to combine the packets into a packetized encoded bitstream; and  
a decoder system comprising:

a feeder operable to separate packets from the packetized encoded bitstream;

a plurality of decode queues, the feeder further operable to distribute the packets to the decode queues;

a plurality of decode units each associated with one of the decode queues, the decode units operable to decode packets using a decompression algorithm to recover the encoded data and to reconstruct the components; and

a demultiplexer coupled to the plurality of decode units the demultiplexer operable to combine the plurality of components to recover the bitstream.

15. (Twice Amended) A system for parallel compression and decompression of a bitstream, comprising:

C5  
an encoder system comprising:

D1  
plurality of encode units operable to receive a plurality of components comprising separate lines separated from a bitstream from a digitized graphics or video frame and to encode the components using a compression algorithm;

the encode units further operable to construct packets from the encoded components, where at least one packet is associated with each encoded

C3  
component and the at least one packet comprises header information and encoded data and wherein the header information comprises a predictor; and

a multiplexer coupled to the encode units, the multiplexer operable to combine the packets into a packetized encoded bitstream; and  
a decoder system comprising:

a feeder operable to separate packets from the packetized encoded bitstream;

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a plurality of decode queues, the feeder further operable to distribute the packets to the decode queues;

a plurality of decode units each associated with one of the decode queues, the decode units operable to decode packets using a decompression algorithm to recover the encoded data and to reconstruct the components; and

a demultiplexer coupled to the plurality of decode units the demultiplexer operable to combine the plurality of components to recover the bitstream.

C4  
20. The system of Claim 19, wherein the header information of the at least one packet further comprises a size and an alignment.

C1  
27. (Twice Amended) A method for parallel compression of graphic data, comprising:

separating a bitstream into a plurality of scan lines;

encoding each scan line into a plurality of blocks using a lossless compression algorithm; and

constructing at least one packet containing at least one encoded block wherein each encoded block comprises encoded deltas wherein the deltas represent differences from a preceding block.